

EXAMINER'S AMENDMENT

Authorization for this examiner's amendment to the specification was given in a telephone interview with David McAbee on October 7, 2009.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the Claims:

Cancel claims 29-46.

In the Specification:

Add the following two paragraphs to provide a brief description of figures 7 and 8

[0013] Figure 7 includes an embodiment of a cross-sectional elevation view of a wet gel zeolite or aerogel zeolite composite film after further Damascene processing, such as forming a via or trench, has been performed.

[0014] Figure 8 includes an embodiment of a cross-sectional elevation view of a wet gel zeolite or aerogel zeolite composite film after further Damascene processing, such as depositing a barrier layer, forming conductive material in the via and trench and chemical mechanical polish, has been performed.

Election/Restrictions

This application is in condition for allowance except for the presence of claims 29-46 directed to inventions non-elected without traverse. Accordingly, claims 29-46 have been cancelled.

Allowable Subject Matter

Claims 1, 3-11, 13-16, 18-24 and 26-28 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach that both the provision of a conductive material into the via and trench of the wet-gel zeolite composite and the deposition of an ILD takes place before transforming the wet-gel zeolite composite into an aerogel-zeolite composite.

Furthermore, it is nonobvious to fill the via and trench and to cover the wet-gel zeolite composite with a ILD before converting the wet-gel to an aerogel because the process of transforming the wet-gel to an aerogel is a drying process and the drying of the wet gel would be hindered by the conductive material and the overlying ILD. Additionally, it is non-obvious to fill the via and trench with conductive material before calcination of the wet-gel because detrimental migration of the conductive material into the zeolite material would be facilitated by the high temperature of wet-gel to aerogel transformation process.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Olsen whose telephone number is 571-272-1441. The examiner can normally be reached on M, W and F: 1-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Allan Olsen/
Primary Examiner, Art Unit 1792